

Application Serial No. 09/901,014
Amendment after final dated October 22, 2004
Reply to final Office action of June 4, 2004

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1 through 69. (Cancelled).

70. (Currently amended) A system comprising:

an ultrasound transducer responsive to an ultrasound generator to produce ultrasound;
a first sensor measuring a parameter of said ultrasound;
a second sensor measuring a parameter of a sample; and
a central processing unit regulating said ultrasound generator;
wherein said central processing unit adjusts a frequency or an intensity of said ultrasound in response to a first signal from said first sensor and a second signal from said second sensor.

71. (Cancelled)

72. (Currently amended) The system of claim 740, wherein said parameter of said sample is selected from the group consisting of:

a temperature,
a size,
a type,
a density, and
an infrared temperature.

73. (Currently amended) The system of claim 70, wherein said second sensor is selected from the group consisting of:

an ultrasound sensor, and
an infrared temperature sensor.

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74. (Currently amended) The system of claim 70, wherein said first sensor measures a frequency or an intensity of said ultrasound.

75. (Currently amended) The system of claim 70 wherein said first sensor produces readings which are processed by said central processing unit.

76. (Original) The system of claim 70 wherein said ultrasound generator is controlled by said central processing unit.

77. (Original) The system of claim 70 wherein said transducer generates ultrasound of a frequency of at least 100 KHz.

78. (Original) The system of claim 77 wherein said transducer generates ultrasound of a single frequency or of multiple frequencies in the range 100 KHz to 50 MHZ.

79. (Original) The system of claim 70 wherein said ultrasound transducer produces ultrasound of a power in the range of 0.01-200 W/cm².

80 through 91. (Cancelled).